UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/368,354	08/05/1999	ROBERT R. BUCKLEY	103044	5438

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OLIFF & BERRIDGE PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER
POKRZYWA, JOSEPH R

ART UNIT	PAPER NUMBER
2622	

DATE MAILED: 12/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

<table>
<tr><td rowspan="2" style="width:30%">Office Action Summary</td><td colspan="2">Application No.</td><td colspan="2">Applicant(s)</td></tr>
<tr><td colspan="2">09/368,354</td><td colspan="2">BUCKLEY ET AL.</td></tr>
<tr><td></td><td>Examiner</td><td></td><td>Art Unit</td><td></td></tr>
<tr><td></td><td>Joseph R. Pokrzywa</td><td></td><td>2622</td><td></td></tr>
</table>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>31 August 2005</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-23</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-23</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)
1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

U.S. Patent and Trademark Office

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments were received on 8/31/05, and have been entered and made of record. Currently, **claims 1-23** are pending.

2.   Applicant's arguments, see pages 1-5, filed 8/31/05, with respect to the rejection of claims 1, 10, and 23 have been fully considered and are persuasive. The rejection under 35 U.S.C. 103(a) as being unpatentable over Allen *et al.* (U.S. Patent Number 5,633,662) in view of Miller *et al.* (U.S. Patent Number 5,731,823). of claims 1-23 has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Blair *et al.* (U.S. Patent Number 6,031,630).

Claim Rejections - 35 USC § 101

3.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4.   **Claim 22** is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

5.   *Claim 22* describes a storage medium, on which data that is processed by the method of claim 1, is stored. Thus, the claim teaches of a storage medium that stores data. This is non-functional descriptive material, as mere data, such as music, a picture, a literary work, or a compilation of data, do not become functionally and structurally interrelated to the computer (i.e., not executable code; does not program the computer, or cause the computer to perform

certain acts). Non-functional descriptive material is non-statutory because it does not constitute

a statutory process, machine, manufacture or composition of matter. See MPEP 2106.

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7.   **Claims 1-5, 10-14, 19, and 21-23** are rejected under 35 U.S.C. 102(e) as being

anticipated by Blair *et al.* (U.S. Patent Number 6,031,630).

Regarding *claim 1*, Blair discloses a method of processing image data of a color image

for marking (see abstract), the color image containing overmarked pixels where at least one first

color is to be overmarked by a second color (see abstract, and column 1, line 25-column 2, line

24), the method comprising generating information that designates the overmarked pixels

(column 2, line 45-column 3, line 65), performing raster image processing to create a raster

image of the color image (column 2, line 45-column 3, line 65), the raster image processing

including overmarking processing that allows both the at least one first color and the second

color to be separately included in the overmarked pixels in the same raster image (column 3, line

66-column 4, line 46), and modifying image data of the overmarked pixels in the raster image to

achieve undercolor reduction by reducing a value corresponding to a reduced amount of an

underlying marking material (column 3, line 66-column 4, line 46).

Regarding *claim 2*, Blair discloses the method discussed above in claim 1, and further

teaches that the modifying the image data of the overmarked pixels comprises modifying image

data corresponding to the at least one first color (column 3, line 66-column 4, line 46).

Regarding *claim 3*, Blair discloses the method discussed above in claim 1, and further

teaches of outputting the raster image, including the modified image data, to a marking driver

(column 3, line 66-column 4, line 46, and column 4, line 64-column 5, line 33).

Regarding *claim 4*, Blair discloses the method discussed above in claim 1, and further

teaches that the modifying image data of the overmarked pixels comprises modifying a value of

the image data corresponding to the at least one first color (column 3, line 66-column 4, line 46,

and column 4, line 64-column 5, line 33).

Regarding *claim 5*, Blair discloses the method discussed above in claim 4, and further

teaches that the modified value of the image data corresponding to the at least one first color

results in a reduced amount of marking material corresponding to the at least one first color

being applied to a marking substrate (column 3, line 66-column 4, line 46, and column 4, line 64-

column 5, line 33).

Regarding *claim 10*, Blair discloses a system that processes image data of a color image

for marking (see abstract), the color image containing overmarked pixels where at least one first

color is to be overmarked by a second color (see abstract, and column 1, line 25-column 2, line

24), the system comprising an overmarked pixel designator that generates information that

designates the overmarked pixels (column 2, line 45-column 3, line 65), a raster image processor

that creates a raster image of the color image (column 2, line 45-column 3, line 65), the raster

image processor provided with an overmarking function that allows both the at least one first

color and the second color to be separately included in the overmarked pixels in the same raster image (column 3, line 66-column 4, line 46), and an image data modification unit that modifies image data of the overmarked pixels in the raster image to achieve undercolor reduction by reducing a value corresponding to a reduced amount of an underlying marking material (column 3, line 66-column 4, line 46).

Regarding *claim 11*, Blair discloses the system discussed above in claim 10, and further teaches that the modified image data is image data corresponding to the at least one first color (column 3, line 66-column 4, line 46).

Regarding *claim 12*, Blair discloses the system discussed above in claim 10, and further teaches of a marking driver that performs marking according to the raster image, including the modified image data (column 3, line 66-column 4, line 46, and column 4, line 64-column 5, line 33).

Regarding *claim 13*, Blair discloses the system discussed above in claim 10, and further teaches that the image data modification unit modifies a value of the image data corresponding to the at least one first color (column 3, line 66-column 4, line 46, and column 4, line 64-column 5, line 33).

Regarding *claim 14*, Blair discloses the system discussed above in claim 10, and further teaches of a marking driver performs marking according to the *processed image*, including the modified image data, wherein the marking driver marks a reduced amount of marking material corresponding to the at least one first color on a marking substrate based on the modified value of the image data corresponding to the at least one first color (column 3, line 66-column 4, line 46, and column 4, line 64-column 5, line 33).

Regarding *claim 19*, Blair further discloses a printer incorporating the system set forth in claim 10 (column 2, line 36-column 3, line 6).

Regarding *claim 21*, Blair further discloses a storage medium on which is stored a program that implements the method set forth in claim 1 (column 2, line 36-column 3, line 6, and column 5, lines 19-34).

Regarding *claim 22*, Blair further discloses a storage medium on which is stored data that has been processed according to the method set forth in claim 1 (column 2, line 36-column 3, line 6, and column 5, lines 19-34).

Regarding *claim 23*, Blair discloses a method of processing image data of a color image for marking (see abstract), the color image containing overmarked pixels where at least one first CMY color is to be overmarked by a black color (see abstract, and column 1, line 25-column 2, line 24), the method comprising generating information that designates the overmarked pixels (column 2, line 45-column 3, line 65), performing raster image processing to create a raster image of the color image (column 2, line 45-column 3, line 65), the raster image processing including overmarking processing that allows both the at least one first CMY color and the black color to be separately included in the overmarked pixels in the same raster image (column 3, line 66-column 4, line 46), and modifying CMY image data of the overmarked pixels in the raster image to achieve undercolor reduction by reducing a value corresponding to a reduced amount of an underlying CMY marking material (column 3, line 66-column 4, line 46).

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

9.   **Claims 6-9, 15-18, and 20** are rejected under 35 U.S.C. 103(a) as being unpatentable

over Blair *et al.* (U.S. Patent Number 6,031,630) in view of Miller *et al.* (U.S. Patent Number

5,731,823, cited in the Office action dated 8/1/05).

Regarding *claim 6*, Blair discloses the method discussed above in claim 1, and but fails to

expressly disclose if the generating information that designates the overmarked pixels comprises

generating tags that correspond to the overmarked pixels.

Miller discloses a method of processing image data of a color image for marking (see

abstract), the color image containing overmarked pixels where at least one first color is to be

overmarked by a second color (column 6, lines 25 through 52), the method comprising

generating information that designates the overmarked pixels (column 3, lines 35 through 50,

and column 6, line 25 through column 7, line 13), performing raster image processing to create a

raster image of the color image (column 5, lines 33 through 43, and column 7, lines 14 through

21), the raster image processing including overmarking processing that allows both the at least

one first color and the second color to be separately included in the overmarked pixels in the

same raster image (column 5, line 33-column 6, line 63, and column 7, lines 21-45), and

modifying image data of the overmarked pixels in the raster image (column 5, lines 44 through

67, and column 7, lines 21 through 64). Further, Miller teaches that the generating information

that designates the overmarked pixels comprises generating tags that correspond to the overmarked pixels (column 3, lines 35 through 50, column 6, line 25 through column 7, line 13, and column 8, lines 6-18).

Blair & Miller are combinable because they are from the same field of endeavor, being printing devices that process overlapping image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have Miller's tag generation teachings included within the image processing teachings of Blair. The suggestion/motivation for doing so would have been that Blair's system would conform with well known standards in the art of rasterizing image data in color printers, whereby the type of data is identified and tagged, as recognized by Miller in column 6, lines 13-63, thus being an efficient, automated system. Therefore, it would have been obvious to combine the teachings of Miller with the system of Blair to obtain the invention as specified in claim 6.

Regarding *claim 7*, Blair and Miller disclose the method discussed above in claim 6, and Miller further teaches that the overmarked pixels correspond to a black image and the tags indicate that the overmarked pixels are black image pixels (column 6, line 25-column 7, line 54, and column 8, lines 6-18).

Blair & Miller are combinable because they are from the same field of endeavor, being printing devices that process overlapping image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have Miller's tag generation teachings included within the image processing teachings of Blair. The suggestion/motivation for doing so would have been that Blair's system would conform with well known standards in the art of rasterizing image data in color printers, whereby the type of data is identified and tagged, as

recognized by Miller in column 6, lines 13-63, thus being an efficient, automated system.

Therefore, it would have been obvious to combine the teachings of Miller with the system of

Blair to obtain the invention as specified in claim 7.

Regarding *claim 8*, Blair and Miller disclose the method discussed above in claim 6, and

Miller further teaches that the overmarked pixels correspond to one of black text and a black

stroke (column 6, line 25-column 7, line 54), and the tags indicate that the overmarked pixels are

one of black text pixels and black stroke pixels (column 6, line 25-column 7, line 54, and column

8, lines 6-18).

Blair & Miller are combinable because they are from the same field of endeavor, being

printing devices that process overlapping image data. At the time of the invention, it would have

been obvious to a person of ordinary skill in the art to have Miller's tag generation teachings

included within the image processing teachings of Blair. The suggestion/motivation for doing so

would have been that Blair's system would conform with well known standards in the art of

rasterizing image data in color printers, whereby the type of data is identified and tagged, as

recognized by Miller in column 6, lines 13-63, thus being an efficient, automated system.

Therefore, it would have been obvious to combine the teachings of Miller with the system of

Blair to obtain the invention as specified in claim 8.

Regarding *claim 9*, Blair discloses the method discussed above in claim 1, but fails to

expressly disclose if the generating information that designates the overmarked pixels comprises

performing pattern recognition that recognizes specified patterns, and designating pixels that

form the recognized patterns as the overmarked pixels.

Miller discloses a method of processing image data of a color image for marking (see abstract), the color image containing overmarked pixels where at least one first color is to be overmarked by a second color (column 6, lines 25 through 52), the method comprising generating information that designates the overmarked pixels (column 3, lines 35 through 50, and column 6, line 25 through column 7, line 13), performing raster image processing to create a raster image of the color image (column 5, lines 33 through 43, and column 7, lines 14 through 21), the raster image processing including overmarking processing that allows both the at least one first color and the second color to be separately included in the overmarked pixels in the same raster image (column 5, line 33-column 6, line 63, and column 7, lines 21-45), and modifying image data of the overmarked pixels in the raster image (column 5, lines 44 through 67, and column 7, lines 21 through 64). Further, Miller teaches that the generating information that designates the overmarked pixels comprises performing pattern recognition that recognizes specified patterns (see abstract, column 3, lines 35 through 65), and designating pixels that form the recognized patterns as the overmarked pixels (column 6, line 25 through column 7, line 54).

Blair & Miller are combinable because they are from the same field of endeavor, being printing devices that process overlapping image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have Miller's pattern recognition teachings included within the image processing teachings of Blair. The suggestion/motivation for doing so would have been that Allen's system would conform with well known standards in the art of image data processing in color printers, whereby the type of data is identified and characterized, as recognized by Miller in column 6, lines 13-63, thus being an efficient, automated system.

Therefore, it would have been obvious to combine the teachings of Miller with the system of Blair to obtain the invention as specified in claim 9.

Regarding *claim 15*, Blair discloses the system discussed above in claim 10, but fails to expressly teach if the overmarked pixel designator comprises a tag generator that generates tags that correspond to the overmarked pixels.

Miller discloses a system that processes image data of a color image for marking (see abstract), the color image containing overmarked pixels where at least one first color is to be overmarked by a second color (column 6, lines 25 through 52), the system comprising an overmarked pixel designator that generates information that designates the overmarked pixels (column 3, lines 35 through 50, and column 6, line 25 through column 7, line 13), a raster image processor that creates a raster image of the color image (column 5, lines 33 through 43, and column 7, lines 14 through 21), the raster image processor provided with an overmarking function that allows both the at least one first color and the second color to be separately included in the overmarked pixels in the same raster image (column 5, line 33-column 6, line 63, and column 7, lines 21-45), and an image data modification unit that modifies image data of the overmarked pixels in the raster image (column 5, lines 44 through 67, and column 7, lines 21 through 64). Further, Miller teaches that the overmarked pixel designator comprises a tag generator that generates tags that correspond to the overmarked pixels (column 3, lines 35 through 50, column 6, line 25 through column 7, line 13, and column 8, lines 6-18).

Blair & Miller are combinable because they are from the same field of endeavor, being printing devices that process overlapping image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have Miller's tag generation teachings

included within the image processing teachings of Blair. The suggestion/motivation for doing so would have been that Blair's system would conform with well known standards in the art of rasterizing image data in color printers, whereby the type of data is identified and tagged, as recognized by Miller in column 6, lines 13-63, thus being an efficient, automated system. Therefore, it would have been obvious to combine the teachings of Miller with the system of Blair to obtain the invention as specified in claim 15.

Regarding *claim 16*, Blair and Miller disclose the system discussed above in claim 15, and Miller further teaches that the overmarked pixels correspond to a black image and the tags indicate that the overmarked pixels are black image pixels (column 6, line 25-column 7, line 54, and column 8, lines 6-18).

Blair & Miller are combinable because they are from the same field of endeavor, being printing devices that process overlapping image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have Miller's tag generation teachings included within the image processing teachings of Blair. The suggestion/motivation for doing so would have been that Blair's system would conform with well known standards in the art of rasterizing image data in color printers, whereby the type of data is identified and tagged, as recognized by Miller in column 6, lines 13-63, thus being an efficient, automated system. Therefore, it would have been obvious to combine the teachings of Miller with the system of Blair to obtain the invention as specified in claim 16.

Regarding *claim 17*, Blair and Miller disclose the system discussed above in claim 15, and Miller further teaches that the overmarked pixels correspond to one of black text and a black stroke (column 6, line 25-column 7, line 54), and the tags indicate that the overmarked pixels are

one of black text pixels and black stroke pixels (column 6, line 25-column 7, line 54, and column 8, lines 6-18).

Blair & Miller are combinable because they are from the same field of endeavor, being printing devices that process overlapping image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have Miller's tag generation teachings included within the image processing teachings of Blair. The suggestion/motivation for doing so would have been that Blair's system would conform with well known standards in the art of rasterizing image data in color printers, whereby the type of data is identified and tagged, as recognized by Miller in column 6, lines 13-63, thus being an efficient, automated system. Therefore, it would have been obvious to combine the teachings of Miller with the system of Blair to obtain the invention as specified in claim 17.

Regarding *claim 18*, Blair discloses the system discussed above in claim 10, but fails to expressly teach if the overmarked pixel generator comprises a pattern recognition device that recognizes specified patterns, and designates pixels that form the recognized patterns as the overmarked pixels.

Miller discloses a system that processes image data of a color image for marking (see abstract), the color image containing overmarked pixels where at least one first color is to be overmarked by a second color (column 6, lines 25 through 52), the system comprising an overmarked pixel designator that generates information that designates the overmarked pixels (column 3, lines 35 through 50, and column 6, line 25 through column 7, line 13), a raster image processor that creates a raster image of the color image (column 5, lines 33 through 43, and column 7, lines 14 through 21), the raster image processor provided with an overmarking

function that allows both the at least one first color and the second color to be separately

included in the overmarked pixels in the same raster image (column 5, line 33-column 6, line 63,

and column 7, lines 21-45), and an image data modification unit that modifies image data of the

overmarked pixels in the raster image (column 5, lines 44 through 67, and column 7, lines 21

through 64). Further, Miller teaches that the overmarked pixel generator comprises a pattern

recognition device that recognizes specified patterns (see abstract, column 3, lines 35 through

65), and designates pixels that form the recognized patterns as the overmarked pixels (column 6,

line 25 through column 7, line 54).

Blair & Miller are combinable because they are from the same field of endeavor, being

printing devices that process overlapping image data. At the time of the invention, it would have

been obvious to a person of ordinary skill in the art to have Miller's pattern recognition teachings

included within the image processing teachings of Blair. The suggestion/motivation for doing so

would have been that Blair's system would conform with well known standards in the art of

image data processing in color printers, whereby the type of data is identified and characterized,

as recognized by Miller in column 6, lines 13-63, thus being an efficient, automated system.

Therefore, it would have been obvious to combine the teachings of Miller with the system of

Blair to obtain the invention as specified in claim 18.

Regarding *claim 20*, Blair fails to expressly disclose a digital copier incorporating the

system set forth in claim 10.

Miller discloses a system that processes image data of a color image for marking (see

abstract), the color image containing overmarked pixels where at least one first color is to be

overmarked by a second color (column 6, lines 25 through 52), the system comprising an

overmarked pixel designator that generates information that designates the overmarked pixels (column 3, lines 35 through 50, and column 6, line 25 through column 7, line 13), a raster image processor that creates a raster image of the color image (column 5, lines 33 through 43, and column 7, lines 14 through 21), the raster image processor provided with an overmarking function that allows both the at least one first color and the second color to be separately included in the overmarked pixels in the same raster image (column 5, line 33-column 6, line 63, and column 7, lines 21-45), and an image data modification unit that modifies image data of the overmarked pixels in the raster image (column 5, lines 44 through 67, and column 7, lines 21 through 64). Miller further discloses a digital copier incorporating the system set forth in claim 10 (column 11, line 45 through column 12, line 6).

Blair & Miller are combinable because they are from the same field of endeavor, being printing devices that process overlapping image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Miller having a digital copier incorporating the system, in the system of Blair. The suggestion/motivation for doing so would have been that Blair's system would be usable in various embodiments, thereby being usable by more users, as recognized by Miller in column 12, lines 1-26. Therefore, it would have been obvious to combine the teachings of Miller with the system of Blair to obtain the invention as specified in claim 20.

Citation of Pertinent Prior Art

10.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure:

        Ryan (U.S. Patent Number 6,118,548) discloses a printer that replaces true black with
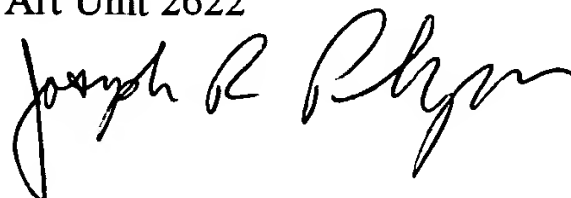
process black.

Conclusion

11.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Joe Pokrzywa whose telephone number is (571) 272-7410. The

examiner can normally be reached on Monday-Friday, 9:00-5:00.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Edward L. Coles can be reached on (571) 272-7402. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

        Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

                                              Joseph R. Pokrzywa
                                              Primary Examiner
                                              Art Unit 2622

jrp